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Claims

[c1] What is claimed is:

1.A method for calculating a pitch estimation of a sound signal with a voice processor, the sound signal comprising a plurality of sound data, the method comprising the following steps:

(a) determining a pitch upper bound value and a pitch lower bound value according to the signal and corresponding pitch ranges in a database;

(b) calculating a lag parameter upper bound value and a lag parameter lower bound value according to the pitch upper bound value and the pitch lower bound value determined in step(a);

(c)using the voice processor to generate a plurality of autocorrelation values according to a plurality of pointer values between the lag parameter lower bound value and the lag parameter upper bound value;

(d) comparing the plurality of autocorrelation values to find the maximum of the plurality of autocorrelation values and calculating the pitch estimation of the sound signal according to the lag parameter corresponding to the maximum autocorrelation values.

[c2] 2. The method of claim 1 wherein the step (c) further comprises setting an increment value equal to the lag parameter lower bound value, the increment value being equal to the difference between two neighboring pointer values.

[c3] 3. The method of the claim 1 wherein the method further comprises the following steps:
providing a threshold value;
comparing the plurality of autocorrelation values and the threshold value to find the maximum autocorrelation value in the plurality of autocorrelation values and calculating the pitch estimation of the sound signal according to the lag parameter corresponding to the maximum autocorrelation.

[c4] 4.A sound processing device for implementing the method of claim 1.